

Right-Click Context Functions for Unigraphics

This tip discusses setting up context commands in Windows that run UG commands. These commands run by selecting the objects (directories, files, etc.) and using the right mouse button.

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OVERVIEW:

In both Unigraphics and Pro/Engineer, there are legacy tools that run outside of the model software and can be very useful. Examples of this are ug_convert_part.exe and ugpc.exe for Unigraphics, and purge.bat in Pro/Engineer. The problem is you have to leave the main program and then have to use the DOS window to type the commands and file paths to run. This can be quite time consuming and frustrating.

Luckily, in Windows these functions can be assigned to right-click of a mouse on the intended file. This makes the routines much simpler to run and greatly reduces the time required. Below is a description of the process for assigning right-click commands – as well as routines we like to use.

We've organized the procedure to set these up into a couple of sections. First we discuss the general method, and then follow with our examples. You can click on the bookmarks above to jump to the various sections.

GENERAL RIGHT-CLICK SETUP:

(In Windows 2000, other Windows platforms should be similar.)

- Opening Windows Explorer, select 'Tools>Folder Options' from the menu bar
- In the dialog box that comes up, select the 'File Types' tab
- Scroll down to and select the object or file type the command is to be run on. Commonly these are .prt files or file folders
- Click on the 'Advanced' button, in the "Details for <object> extension" portion of the dialog. The "Edit File Type" dialog will come up
- Create a new action by clicking the 'New' button. The New Action dialog box comes up
- Type a short explanatory name for the function in the Action Field
- Type the DOS command to run in the Application Used field. Knowing what to write as the command line is the trickiest part of this setup, and experimentation using the DOS command prompt is often required. One handy symbol to know is %1, which indicates to the function to put whatever object is selected into the command line at that point
- Once the command line has been added:
'OK' the New Action dialog, 'OK' the Edit File Type dialog, and 'OK' the File Options box

That's it. A quick description of the process:

- Told Windows that an action could be run on the selected file or folder.
- Told Windows what that action is, by giving it a command line entry as if you were in DOS mode.

Following are some specific examples.

RIGHT-CLICK UNIT CONVERSION FOR UNIGRAPHICS FILES:

It's a bit frustrating to create a Unigraphics part file in one unit, and then realize you need it in a different unit. I find this most commonly when I create a new part and click through the defaults rather than remembering to select the units. The frustration is not so much switching as having to go out of the model, go into DOS and manually type in path names to run the conversion program. Using the right-click setup greatly speeds up and simplifies this process:

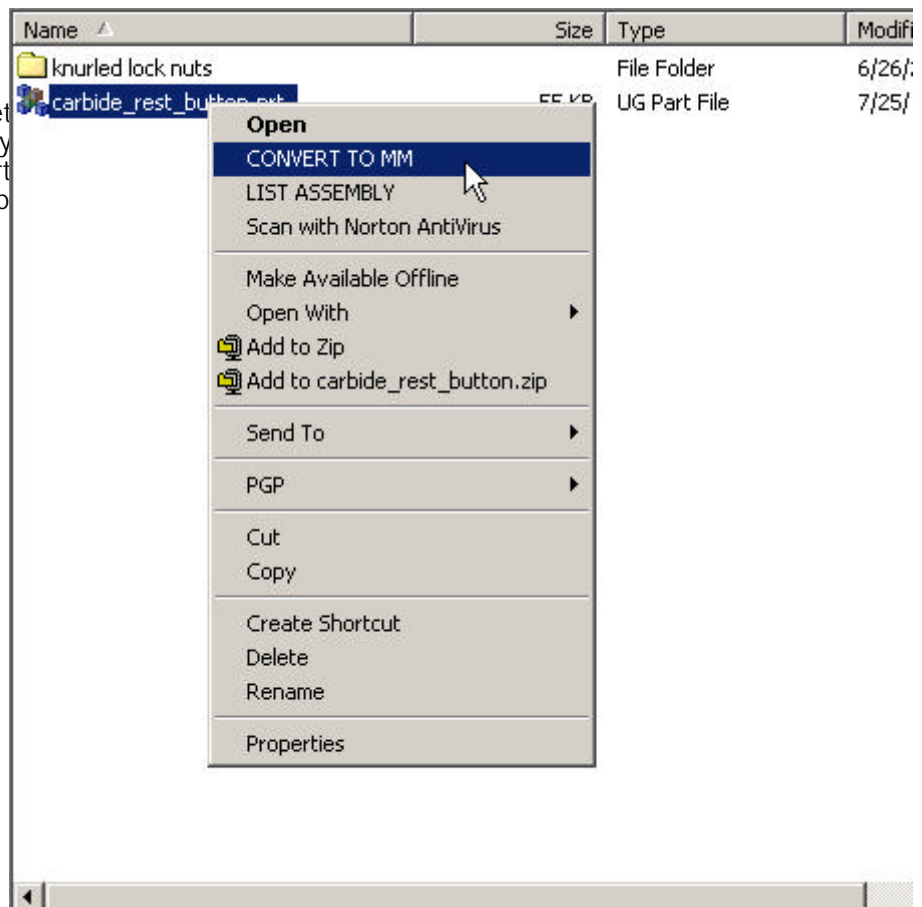
SETUP:

- Go through the process described above for general setup. Enter the specifics below.

-When the New Action dialog box comes up:

- Type "Convert to MM" in the Action Field
- Type "<UGII Path>ug_convert_part.exe -mm %1" in the Application Used field (ex: C:\UGS180\UGII\ug_convert_part.exe -mm %1)
(Leave out the outside parenthesis on the above entries)
- 'Ok' the New Action dialog, 'OK' the Edit File Type dialog, and 'OK' the File Options box

Now when you want to convert a file to millimeters, just right-click on said file in Windows Explorer. Pick "Convert to MM" from the options that pop up and if all is set up right your file will be quickly and quietly converted to millimeters. To have it convert a file to inches, go through the same setup but enter "-in" rather than "-mm" in the Application Used field of the new action.





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RIGHT-CLICK ASSEMBLY LISTING FOR UNIGRAPHICS FILES:

It's common for us to gather files together, either at the end of a project or when sending designs for review. Since we use standard component part families and often have files in varied directory locations, it can be quite time consuming to track down and collect all the required files. We've developed a two stage process to do this, first generating a list of the required files and then running a small application to collect those files and copy them to a single directory.

The first part of the process – generating an assembly list – is a simple process and useful beyond just gathering files. Below is our method, which looks at an assembly file and creates a standard text file containing the file paths.

SETUP:

- Go through the process described above for general setup. Enter the specifics below.
- When the New Action dialog box comes up:
- Type "List Assembly" in the Action Field
 - In the Application Used field, type "<system command path>cmd.exe /c "<UGII Path>\ugpc.exe" -a %1 > _Assy_List.txt"
(ex: c:\winnt\system32\cmd.exe /c "C:\Program Files\EDS\Unigraphics NX\UGII\ugpc.exe" -a %1 > _Assy_List.txt)
(Leave out the outside parenthesis on both the above entries.)
(It may be necessary to replace <UGII Path> with whichever directory "ugpc.exe" is located)
 - 'Ok' the New Action dialog, 'OK' the Edit File Type dialog, and 'OK' the File Options box

Now when you want to list the component files in an assembly, just right-click on the assembly file and select "List Assembly". The text file will be created and saved to "_Assy_List.txt" in the assembly's directory. If you want it to be saved to a different text file name, substitute a name for "_Assy_List.txt" in the Application Used field. This function is more effective when the workstation running the listing has the same directory structure as the workstation that last saved the file.